

Date: Thu, 9 Sep 93 17:29:13 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #1072  
To: Info-Hams

Info-Hams Digest                      Thu, 9 Sep 93                      Volume 93 : Issue 1072

Today's Topics:

                    arrgghh (2 msgs)  
            AURORA WARNING: Middle Latitude Auroral Activity Warning  
Emergency: cellular vs ham (was Re: Yagi for Cellular Phone?)  
            FIDONET rebroadcastin  
            Is This SAFE?  
            Morris Code  
            Newsline on GENie? H  
            Personal Satellite Reception  
            Radio Shack HTXs  
            right angle din plug  
            W9GR DSP KIT ??  
Weekly Solar Terrestrial Forecast & Review for 10 September

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.  
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Date: Tue, 7 Sep 1993 19:07:27 GMT  
From: elroy.jpl.nasa.gov!sdd.hp.com!col.hp.com!news.dtc.hp.com!srngenprp!  
alanb@ames.arpa  
Subject: arrgghh  
To: info-hams@ucsd.edu

Derek Wills (oo7@emx.cc.utexas.edu) wrote:  
: reid@ucs.indiana.edu (Frank Reid W9MKV) reports:

: >>"I can't send any more SOS's; the transmitter is broken," said Tom  
: >>remorselessly.

: "Hold this cable", said Tom, coaxingly.  
: "I'll call you from Spratly Island", said Tom, expeditiously.  
: "How do you send my name in CW?", Tom asked, dashingly.  
"How do I get this HTX-202 to transmit on 150 MHz?" asked Tom modishly.  
AL N1AL

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Date: Thu, 9 Sep 1993 08:26:45 GMT  
From: sdd.hp.com!hpscit.sc.hp.com!hplextra!hplb!hpwin052!hpqmoea!  
dstock@network.ucsd.edu  
Subject: arrgghh  
To: info-hams@ucsd.edu

Alan Bloom (alanb@sr.hp.com) wrote:  
: Derek Wills (oo7@emx.cc.utexas.edu) wrote:  
: : reid@ucs.indiana.edu (Frank Reid W9MKV) reports:  
  
: : >>"I can't send any more SOS's; the transmitter is broken," said Tom  
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: : "How do you send my name in CW?", Tom asked, dashingly.  
  
: "How do I get this HTX-202 to transmit on 150 MHz?" asked Tom modishly.  
  
"I've already tried removing \*ALL\* the diodes" said Tom, experimentally

David GM4ZNX

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Date: 9 Sep 93 21:29:01 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: AURORA WARNING: Middle Latitude Auroral Activity Warning  
To: info-hams@ucsd.edu

\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\/\\

MIDDLE LATITUDE AURORAL ACTIVITY WARNING

WARNING ISSUED: 20:30 UT, 09 SEPTEMBER

VALID UNTIL: 19:00 UTC ON 14 SEPTEMBER

HIGH RISK PERIOD: 11 Sep - 13 Sep (UT days)

MODERATE RISK PERIOD: 10 Sep - 14 Sep

PREDICTED ACTIVITY INDICES FOR NEXT 5 DAYS: 08, 17, 40, 32, 18 (10 - 14 SEP)  
(INPUT INTO THE AURORAL SIMULATION SOFTWARE \*)

POTENTIAL MAGNITUDE OF MIDDLE LATITUDE AURORAL ACTIVITY: MODERATE - HIGH

POTENTIAL DURATION OF THIS ACTIVITY: 48 TO 72 HOURS

POTENTIAL LUNAR INTERFERENCE: LOW

OVERALL OPPORTUNITY FOR OBSERVATIONS FROM MIDDLE LATITUDES: GOOD - VERY GOOD

APPROXIMATE OPTIMUM OBSERVING CONDITIONS (LOCAL TIME): NEAR LOCAL MIDNIGHT

AURORAL ACTIVITY MAY BE OBSERVED APPROXIMATELY NORTH OF A LINE FROM...

NORTHERN OREGON TO SOUTH-CENTRAL IDAHO TO WYOMING TO NORTHERN  
NEBRASKA TO SOUTHERN IOWA TO CENTRAL ILLINOIS TO CENTRAL INDIANA  
TO OHIO TO PENNSYLVANIA TO NEW JERSEY AND POSSIBLY PARTS OF DELAWARE.

ACTIVITY MAY ALSO BE OBSERVED APPROXIMATELY NORTH OF A LINE FROM...

THE U.K. TO EXTREME NORTHERN FRANCE TO BELGIUM TO NORTHERN GERMANY TO SOUTHERN SWEDEN TO SOUTHERN FINLAND TO NORTHERN RUSSIA. EXTREME SOUTHERN REGIONS OF AUSTRALIA AND NEW ZEALAND MAY BE ABLE TO SPOT WEAK OR DIFFUSE ACTIVITY ON THE HORIZON AND SPORADIC BURSTS OF AURORAL RAY ACTIVITY DURING STRONGER SUBSTORM ACTIVITY, EXTENDING SEVERAL TENS OF DEGREES ABOVE THE SOUTHERN HORIZON.

\* Contact: Oler@Rho.Uleth.CA or COler@Solar.Stanford.Edu for more information regarding the Auroral Activity Prediction and Simulation Software.

## SYNOPSIS...

A large, recurrent solar coronal hole is due to rotate into a favorable position and begin enhancing levels of auroral activity on 11 September. This disturbance was responsible for producing a moderate intensity auroral storm last month. The coronal hole responsible for producing

this activity has since grown in size and extent. Due to the recurrent nature of this disturbance and the exceptionally large latitudinal coverage of the coronal hole, confidence is high that this disturbance will produce an enhancement in auroral activity that may be observed from middle latitude regions. The disturbance should last approximately 48 to 72 hours and should become strongest during the UTC day of 12 September.

For those with our Auroral Oval Simulation Software, optimal input values of between 30 and 40 should be used on 12 September. Use the Internet command: "finger aurora@xi.uleth.ca" to obtain current forecast values and synoptical information.

This warning will remain active until 19:00 UT on 14 September when it will either be updated or allowed to expire.

\*\* End of Warning \*\*

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Date: 9 Sep 93 22:59:20 GMT  
From: ogicse!emory!rsiatl!jgd@network.ucsd.edu  
Subject: Emergency: cellular vs ham (was Re: Yagi for Cellular Phone?)  
To: info-hams@ucsd.edu

> In article <CCzo76.IFp@fc.hp.com> goris@fc.hp.com writes:  
>  
>  
> Eh? Cellular? Emergency? What happened to Amateur radio? I thought that's  
> what our entire purpose and being was for? It's not the channel cops will  
> arrest you now for calling a tow truck (or Pizza Delivery).

Well let's see. Consider this actual car wreck I witnessed a few years ago. One of the big ARES-types on our local repeater also witnessed it.

8:30:00: Wreck happens  
me: <picks up portable cellular phone as I pull over to the side of the road and dial 911.>

8:30:10  
911: 911, what is your emergency.  
me: Cellphone, sandy plains and hwy 5. (I learned to do that in case my battery or the cell drops out, they can dispatch to the address. )

There is a 2 car wreck with injuries between a blue car and a pickup truck at the intersection of Sandy Plains and Hwy 5. I am looking in the car now and see a child passenger with head injuries and the woman driver possibly pinned behind the wheel. Driver in the truck is out and walking around.

911: <dispatches fire, police and extraction team> What is your name.

me: John De Armond and my cellphone number is xxx-xxxx. I witnessed the wreck so if I'm needed, my home phone is xxx-xxxx.

911: Thank you. Anything else?

me: No. Thanks.

8:31:00 <click> Call over.

8:31:10 I jot the license numbers on the back of my hand and then look to see if either car occupant needs emergency first aid.

8:35:00 First responders arrive from the fire station a mile away.

Meanwhile our ARES hero leaps to the call of duty ...

8:30:00 Wreck happens

8:30:10 Our hero springs into action. He keys over the QSO in progress and yells in that frantic voice normally saved for when they drop the Big One "Break Break Break", the code that the local ARES regards as sacred for emergencies but which everyone else uses to join the conversation.

8:31:00 Not hearing the break because he was yacking, the current talker unkeys. Our hero "break break breaks" again.

8:31:05: <next ham in the rotation> "Oh hi guy, howyadoing? yack yack yack yack yack. So tell us what exciting's going on"

8:33:00 Hero: I have an emergency and need to use the patch.

8:33:05 Other guy: Oh OK, go right ahead.

8:33:10 Hero: WD4xxx on the patch <tone tone tone tone.>

8:33:20 Repeater: Invalid code

8:33:30 hero: Try again. <tone tone tone tone.>

8:33:40 repeater: <10 seconds of Star Wars sound effects> ring. ring.

8:33:50 911: 911, What is your emergency.

8:34:00 hero: This is amateur radio operator WD4xxx. Can you copy? O-V-E-R

8:34:10 911: <that "oh no, not again" tone> Yes I can copy.

8:34:20 hero: I have an emergency to report. O-V-E-R

8:34:30 911 <REAL exasperated tone> I'm listening and can copy.

8:34:40 hero: There has been an accident at <squawk, bleep, howl (30 seconds of misc pager, voice and other intermod howls) <click>>

8:35:00 First responders arrive but our hero doesn't know that because he didn't stop.

8:35:10 repeater <robot voice> Emergency call completed. Call duration xxxx seconds. Thank you for using WD4xxx repeater. Have a nice day. <15 seconds to repeat the same message in Morris>

8:35:35 Hero: Damn. Try again. <tone tone tone tone.>

8:35:40 repeater: <10 seconds of Star War sound effects> ring. ring.  
 8:36:00 911: 911, what is your emergency  
 8:36:10 hero: This is amateur radio operator WD4xxx. We got cut off.  
           Can you copy? O-V-E-R  
 8:36:20 911: <in that "Oh God, why me" tone> Yes. Where is the wreck.  
 8:36:30 Repeater: <30 seconds of misc howls, beeps, pagers and other intermod>  
 8:37:00 Hero: Sorry about that. There is a two car wreck at the intersection  
           of Sandy Plains and Hwy 5. O-V-E-R  
 8:37:10 911: Did that involve a blue car and a pickup truck?  
 8:37:15 hero: Yes it did. O-V-E-R  
 8:37:20 911: Already reported <click>  
 8:37:25 Hero: <tone tone tone> Call complete.  
 8:37:30 repeater <robot voice> Emergency call completed. Call duration  
           xxxx seconds. Thank you for using WD4xxx repeater. Have a  
           nice day. <15 seconds to repeat the same message in Morris>  
 8:38:00 Another ham: Hey guy, way to go. Good job. Probably saved a life.  
           Makes you wonder what they'd do without us hams, huh? That's what  
           this service is all about.

John

--

|                                       |                                  |
|---------------------------------------|----------------------------------|
| John De Armond, WD40QC                | For a free sample magazine, send |
| Performance Engineering Magazine(TM)  | a digest-size 52 cent SASE       |
| Marietta, Ga "Hotrods'n'computers"    | (Domestic) to PO Box 669728      |
| jgd@dixie.com "What could be better?" | Marietta, GA 30066               |
| Life Without Risk Is No Life At All   |                                  |

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Date: 9 Sep 1993 12:28:05 -0400  
 From: dorsai.dorsai.org!dorsai.dorsai.org!not-for-mail@uunet.uu.net  
 Subject: FIDONET rebroadcastin  
 To: info-hams@ucsd.edu

=> In a message to All on 09-08-93 18:53, Chuck@eng.umd.edu said: <=

Ch> Alright what gives? Why are all of these week old messages getting  
 Ch> reposted by this fidonet node?

Ch> f121.n324.z1.fidonet.org

Ch> Is it time to call the animal control people????

Sounds like the usual full restore after a crash syndrom.

Remember the day, about 2 years ago, when some joker dumped his entire Fido  
 SW message base into one huge posting on r.r.shortwave? OUCH!

... Gravity: it's not just a good idea, it's the LAW!  
\_\_\_ Blue Wave/QWK v2.12

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Date: Thu, 9 Sep 1993 09:05:41 GMT  
From: sdd.hp.com!apollo.hp.com!hpwin052!hpqmoea!dstock@network.ucsd.edu  
Subject: Is This SAFE?  
To: info-hams@ucsd.edu

The most accurate answer possible is that nobody knows whether or not there is any link between radio signals and any health problems.

Serious effort has been spent on looking for any link, but none has been found.

The power output from a communications installation is quite trivial to that from a radar system. Some radars put out beams that can cook meat a few metres from the antenna (accidents with people have been reported, and the damage was consistent with heating)

At the power level of a comms link, it would be a bad idea to stick your head where a beam emerges from a dish, there will be some heating and eyes are believed to be delicate.

I think you are in no danger from electromagnetic signals, but falling ice, spanners, antennae are a different matter.

A neighbouring village to where I grew up was close to a major TV broadcast mast, over double the height you mentioned. It iced up badly one winter, shedding truck sized pieces of ice which were blown far further than the expected falling body danger area. The mast eventually failed. Parts of it, and sections of ice came very close to cottages. I don't recall anyone being injured, but everyone being very frightened.

Ok, california doesn't suffer from our sort of weather, but has its own risks instead (Earthquake?)

I think your real risks are mechanical and financial, not electromagnetic in nature, and that your own assessments of them should be sufficient without specialist electromagnetic knowledge.

I personally would avoid such a place because of the difficulty of using sensitive receivers close to continuously operating transmitters !

The exposure from such a site should be far less at ground level than using a handheld radio eg cordless or cellular phone, but try convincing

people when you come to sell.

Hope this helps a bit,

David

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Date: Thu, 9 Sep 1993 08:21:04 GMT  
From: sdd.hp.com!apollo.hp.com!hpwin052!hpqmoea!dstock@network.ucsd.edu  
Subject: Morris Code  
To: info-hams@ucsd.edu

Gene C. Miller (sassociation@worldbank.org) wrote:

: Hmmm....I've been invited to an exhibition of Morris dancing. Should I  
: go?...Gene (KD3LT)

You are completely free to go, if you wish. No-one has any right to force you to go, or not go. No government regulations control Morris dancing.

Be warned, however, that some of the dancers may encourage you to join in. Some people have found that despite long and dedicated practice they still cannot reach the usual speeds of handkerchief manipulation needed to get an invitation to more advanced use of apparatus like a May-pole.

Be sure that it is \*REAL\* Morris dancing. Check for an authentic village green with pub nearby. Check the temperature of the beer. If you can, wear a school cricket sweater or rugby shirt, arrive in an unrestored but pristine British Morris "Minor" car - The timbered "Traveller" version will earn you great kudos.

There is no need to even watch the dancing, or even notice the sound of the tinkling bells, just obey tradition and drink the beer. Modern law will require you to get a bus home, come back the next day to collect the "Moggy minor".

Never admit on this net that you've supported Morris dancing.

Hope this guides you in the finer etiquette

David GM4ZNX

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Date: 9 Sep 1993 12:28:11 -0400  
From: dorsai.dorsai.org!dorsai.dorsai.org!not-for-mail@uunet.uu.net  
Subject: Newslines on GENIE? H  
To: info-hams@ucsd.edu

=> In a message to All on 09-09-93 00:30, Jones@San-jose.ate.slb.co said: <=

Jo> The Newslines I heard said something remarkably similar to the GNU  
Jo> Copyright notice, i.e., if you copy the complete thing, including the  
Jo> copyright notice, it's OK. They were specifically advocating making it  
Jo> available via Packet, by the way. (I suspect that they just hadn't  
Jo> thought of Usenet.) Anyway, if you're worried and can access the Sept.  
Jo> 3, 1993 edition, please review the last few paragraphs.

The verbal copyright at the end of the audio version authorizes anyone to retransmit it in that form, in its entirety. As far as I know I am still the only one authorized to use excerpts. The copyright does not apply to the GENIE posting. Bill gives a third party, Dale Cary, the scripts and a copy of the audio. Dale then transcribes the sound bytes, rewrites and reformats everything for posting. It is modified and in a different format than the original.

The electronically published format is technically a double copyright by Dale Cary and General Electric that includes previously copyrighted material by Newslines Inc. To be perfectly legal, I have to ask either Bill, Dale, or Larry, (GENIE Radio sysop), for permission to repost it. I sent Bill a note yesterday.

... If it isn't broken, don't fix it.  
\_\_\_ Blue Wave/QWK v2.12

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Date: Wednesday, 8 Sep 1993 21:23:54 EDT  
From: sdd.hp.com!elroy.jpl.nasa.gov!usc!howland.reston.ans.net!  
usenet.ins.cwru.edu!news.yzu.edu!psuvml!cunyvml!miwhc@network.ucsd.edu  
Subject: Personal Satellite Reception  
To: info-hams@ucsd.edu

I am writing an article for the Wall Street Journal about the coming age of Personal Remote Sensing, like hooking up a shortwave receiver to a desktop PC and doing image analysis and that kind of stuff on direct satellite download, like from the Russian Meteor Satellites and using microwave reception for GOES.

Ideally I would like to speak with folks who have found certain areas of

research that do better with live download than 'canned' Landsat images for instance.

Also, I would like to speak with people who are using inexpensive satellite reception and analysis in their businesses. Like a farmer who does agricultural analysis of his land, or that fisherman in Florida who does daily analysis as to where the fish will likely be. Weather forecasting is also good.

If you e-mail me, please include your phone number so that I can speak with you and get things moving. Feel free to call me, I'm usually around.

Michael Wofsey  
The Wall Street Journal  
San Francisco, CA  
415-765-6117

The opinions expressed above do not reflect the opinions of Dow Jones & Co. or the Wall Street Journal.

(ignore my edu account, the Journal doesn't have a node, I have to use my Alma Mater's account.)

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Date: Tue, 7 Sep 1993 18:57:55 GMT  
From: dog.ee.lbl.gov!agate!spool.mu.edu!sdd.hp.com!col.hp.com!news.dtc.hp.com!srngenprp!alanb@network.ucsd.edu  
Subject: Radio Shack HTXs  
To: info-hams@ucsd.edu

Ben Coleman (ben@nj8j.atl.ga.us) wrote:  
: leber@panther.warm.INmet.COM (Thomas Leber) writes:

: > Also, is anyone aware of mods for these HTs?

: No, there are none. The HTX-202 is specifically designed to \_not\_ have  
: extended receive.

It's interesting that, in ham lingo, the term "mods" no longer has the original meaning of "modifications". It now means "modifications to extend the frequency range of a radio."

There certainly exist other types of modifications for the HTX-202.

AL N1AL

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Date: 9 Sep 1993 16:47:30 GMT  
From: swrinde!elroy.jpl.nasa.gov!usc!sol.ctr.columbia.edu!usenet.ucs.indiana.edu!  
master.cs.rose-hulman.edu!news@network.ucsd.edu  
Subject: right angle din plug  
To: info-hams@ucsd.edu

Is there any such thing as a right angle 8-pin DIN plug? Info requested.

Is there a right angle adapter for 8-pin DIN plug?

tnx es 73 de K9CUN, Jack

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Date: Tue, 7 Sep 1993 18:48:48 GMT  
From: dog.ee.lbl.gov!agate!spool.mu.edu!sdd.hp.com!col.hp.com!news.dtc.hp.com!  
srgenprp!alanb@network.ucsd.edu  
Subject: W9GR DSP KIT ??  
To: info-hams@ucsd.edu

CECILMOORE@DELPHI.COM (cecilmoo@news.delphi.com) wrote:

: Marc, DSP theory suggests that a serious CW operator will not be satisfied  
: with the available 50 db dynamic range from an 8-bit A/D. Timewave has  
: vastly superior hardware with a 16-bit sigma-delta A/D...KG7BK

Reminds me of those "serious" audio enthusiasts who cannot be satisfied  
with other than gold-plated "Monster" cables to connect their tuner to  
the power amp. :=)

AL N1AL

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Date: 10 Sep 93 00:22:19 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Weekly Solar Terrestrial Forecast & Review for 10 September  
To: info-hams@ucsd.edu

--- SOLAR TERRESTRIAL FORECAST AND REVIEW ---  
September 10 to September 19, 1993

Report Released by Solar Terrestrial Dispatch  
P.O. Box 357, Stirling, Alberta, Canada  
T0K 2E0  
Accessible BBS System: (403) 756-3008

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\*!\*!\*!\*!\*!\* NOTE \*!\*!\*!\*!\*!\*

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|    | 10.7 cm | HF Propagation |    |    |    |     |      |    |  | +/- | CON   | SID   |    |    |    | AU.BKSR |    |   |    | DX | Mag  | Aurora |  |  |  |
|----|---------|----------------|----|----|----|-----|------|----|--|-----|-------|-------|----|----|----|---------|----|---|----|----|------|--------|--|--|--|
|    | SolrFlx | LO             | MI | HI | PO | SWF | %MUF | %  |  | ENH | LO    | MI    | HI | LO | MI | HI      | %  | K | Ap | LO | MI   | HI     |  |  |  |
| -- | -----   | -----          |    |    |    |     |      |    |  |     | ----- | ----- |    |    |    | -----   |    |   |    |    | ---- | -----  |  |  |  |
| 10 | 080     | G              | G  | F  | F  | 01  | 00   | 80 |  | 01  | NA    | NA    | NA | 00 | 05 | 10      | 35 | 2 | 10 | NV | NV   | LO     |  |  |  |
| 11 | 081     | G              | G  | F  | F  | 01  | 00   | 75 |  | 01  | NA    | NA    | NA | 01 | 15 | 20      | 35 | 4 | 15 | NV | LO   | MO     |  |  |  |
| 12 | 082     | F              | F  | VP | VP | 02  | -35  | 70 |  | 02  | NA    | NA    | NA | 20 | 40 | 60      | 25 | 6 | 40 | LO | MO   | HI     |  |  |  |
| 13 | 082     | G              | F  | VP | VP | 05  | -30  | 70 |  | 05  | NA    | NA    | NA | 15 | 30 | 50      | 30 | 5 | 30 | LO | MO   | HI     |  |  |  |
| 14 | 083     | G              | G  | P  | P  | 05  | -10  | 70 |  | 05  | NA    | NA    | NA | 07 | 15 | 30      | 30 | 4 | 18 | NV | LO   | MO     |  |  |  |
| 15 | 084     | G              | G  | F  | F  | 05  | -05  | 70 |  | 05  | NA    | NA    | NA | 03 | 10 | 20      | 35 | 3 | 14 | NV | NV   | MO     |  |  |  |
| 16 | 084     | G              | G  | F  | F  | 10  | 00   | 70 |  | 10  | NA    | NA    | NA | 02 | 05 | 15      | 35 | 2 | 12 | NV | NV   | LO     |  |  |  |
| 17 | 085     | G              | G  | F  | F  | 10  | 00   | 70 |  | 10  | NA    | NA    | NA | 02 | 05 | 15      | 35 | 2 | 10 | NV | NV   | LO     |  |  |  |
| 18 | 085     | G              | G  | F  | F  | 10  | 00   | 70 |  | 10  | NA    | NA    | NA | 02 | 05 | 15      | 35 | 2 | 10 | NV | NV   | LO     |  |  |  |
| 19 | 085     | G              | G  | F  | F  | 10  | 00   | 65 |  | 10  | NA    | NA    | NA | 02 | 10 | 20      | 35 | 3 | 13 | NV | NV   | MO     |  |  |  |

### DEFINITIONS:

Date (day only)

## 10.7 cm S0LaR radio FLUX forecast

HF Propagation Conditions for LOw, MIddle, HIgh, and POlar areas (see below)

HF Short Wave Fade Probability (in %)

HF Maximum Usable Frequency in +/- percent above seasonal normals.  
 HF Prediction CONfidence Level (in %)  
 VHF Sudden Ionospheric ENHancement Probs (in %), weighted for low-mid lats  
 PROBability of "s"poradic E (Es) during the UT day for low, mid and high lats  
 VHF AUroral BackScatteR Probs (in %) for LOw, MIddle and HIgh Latitudes  
 VHF Overall Global DX Potential (in %) - weighted for Low and Middle latitudes  
 Geomagnetic Activity Kp Index (peak value - see below)  
 GeoMAGnetic Activity Ap Index (peak value - see below)  
 AURORAl Activity for LOw, MIddle and HIgh Latitudes (see below)

HF Prop. Quality rated as: EG=Extremely Good, VG=Very Good, G=Good, F=Fair,  
 P=Poor, VP=Very Poor, EP=Extremely Poor.  
 Probability of Sporadic E (Es) for the various latitudes is given in percent.  
 Kp Planetary Index rated: 0=V.Quiet, 1=Quiet, 2=Unstld, 3=Active, 4=V.Active,  
 5=Minor Storm, 6=Major Storm, 7=Maj-Sev Storm, 8=Severe Storm, 9=V.Severe.  
 Ap Planetary Index rated: 0-7=Quiet, 8-16=Unstld, 17-29=Active,  
 30-49=Minor Storm, 50-99=Major Storm, Severe Storm >=100.  
 Auroral Activity rated: NV=Not Visible, LO=Low, MO=Moderate, HI=High,  
 VH=Very High.

#### PEAK PLANETARY 10-DAY GEOMAGNETIC ACTIVITY OUTLOOK (10 SEP - 19 SEP)

|                   |                              |     |     |     |     |     |     |     |     |     |     |            |
|-------------------|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| EXTREMELY SEVERE  |                              |     |     |     |     |     |     |     |     |     |     | HIGH       |
| VERY SEVERE STORM |                              |     |     |     |     |     |     |     |     |     |     | HIGH       |
| SEVERE STORM      |                              |     |     |     |     |     |     |     |     |     |     | MODERATE   |
| MAJOR STORM       |                              |     | *   |     |     |     |     |     |     |     |     | LOW - MOD. |
| MINOR STORM       |                              |     | *** | **  |     |     |     |     |     |     |     | LOW        |
| VERY ACTIVE       |                              |     | *** | *** | **  |     |     |     |     |     |     | NONE       |
| ACTIVE            |                              | *   | *** | *** | *** | *   |     |     |     |     |     | NONE       |
| UNSETTLED         | **                           | **  | *** | *** | *** | *** | **  | *   | *   | *   | *** | NONE       |
| QUIET             | ***                          | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | NONE       |
| VERY QUIET        | ***                          | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | NONE       |
| -----             |                              |     |     |     |     |     |     |     |     |     |     |            |
| Geomagnetic Field | Fri                          | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun |     | Anomaly    |
| Conditions        | Given in 8-hour UT intervals |     |     |     |     |     |     |     |     |     |     | Intensity  |

CONFIDENCE LEVEL: 70%

#### NOTES:

Predicted geomagnetic activity is based heavily on recurrent phenomena. Transient energetic solar events cannot be predicted reliably over periods in excess of several days. Hence, there may be some deviations from the predictions due to the unpredictable transient solar component.

#### 60-DAY GRAPHICAL ANALYSIS OF GEOMAGNETIC ACTIVITY

```

66 |-----J-----|
63 |-----J-----|
59 |-----J-----|
56 |-----J-----|
53 |-----J-----|
50 |-----J-----|
46 |-----J-----|
43 |-----J-----|
40 |-----J-----|
36 |-----J-----|
33 |-----JM-----M-----|
30 |-----JM-----MM-----|
26 |-----JM-----MM-----|
23 |A-----A-----JM-----MM-----|
20 |A-----A-----JM-----MM-----|
17 |A-----AAA-----JMA-----A-----MM-----|
13 |A-----UU-----U-----AAAA-----JMA-----A-----MM-----|
10 |AUU-----UUU-----U-----AAAAUU-----UJMAU-----A U-----MMUUU-----|
7  |AUU U-----UUUU-----U U-----AAAAUUU U-----UJMAUUU-----AUU-----MMUUUU-----|
3  |AUUQU QQQUUUUQQQUQUQQQQQAAAAUUUQUQQUJMAUUUQQQQQAUUQQQQMMUUUU-----|
0  |AUUQUQQQUUUUUQQQUQUQQQQQAAAAUUUQUQQUJMAUUUQQQQQAUUQQQQMMUUUU-----|

```

Chart Start Date: Day #192

#### NOTES:

This graph is determined by plotting the greater of either the planetary A-index or the Boulder A-index. Graph lines are labelled according to the severity of the activity which occurred on each day. The left-hand column represents the associated A-Index for that day.

Q = Quiet, U = Unsettled, A = Active, M = Minor Storm,  
J = Major Storm, and S = Severe Storm.

#### CUMULATIVE GRAPHICAL CHART OF THE 10.7 CM SOLAR RADIO FLUX

```

111 |-----|
110 |-----*-----|
109 |-----*-----|
108 |-----**-----*-----|
107 |-----**-----*-----|
106 |-----***-----*-----|
105 |-----****-----*-----|
104 |-----***** *-----*-----|
103 |-----***** **-----*-----|

```

```
102 |          *****          **          |
101 |          *****      *      ***          |
100 |          *****      **      ***          |
099 |          *****      **      ***          |
098 |          *****      ***      ***          |
097 |          *****      ***      ****          |
096 |          *****          *****          |
095 |          *****          *****      *          |
094 |          *****          *****      **          |
093 |          *****          *****      *      ***          |
092 |          *****          *****      *****          |
091 |          *****          *****          |
090 |          *****          *****      *          |
089 |          *****          *****      ***          |
088 |          *****          *****          |
087 |          *****          *****          |
086 |          *****          *****          |
085 |          *****          *****          |
084 |          *****          *****          |
083 |          *****          *****          |
082 |          *****          *****          |
081 |          *****          *****          |
080 |          *****          *****      *          |
079 |          *****          *****      *          |
078 |          *****          *****          |
077 |          *****          *****          |
```

-----  
Chart Start: Day #192

## GRAPHICAL ANALYSIS OF 90-DAY AVERAGE SOLAR FLUX

-----

```
110 |          |
109 |          |
108 |          |
107 |          |
106 |          |
105 |          |
104 |          |
103 |          |
102 |          |
101 |          |
100 |          |
099 |          |
098 |          |
097 |          |
```

096 | \*\*\*\*\*  
095 | \*\*\*\*\*  
-----

Chart Start: Day #192

NOTES:

The 10.7 cm solar radio flux is plotted from data reported by the Penticton Radio Observatory (formerly the ARO from Ottawa). High solar flux levels denote higher levels of activity and a greater number of sunspot groups on the Sun. The 90-day mean solar flux graph is charted from the 90-day mean of the 10.7 cm solar radio flux.

CUMULATIVE GRAPHICAL CHART OF SUNSPOT NUMBERS  
-----

```
123 |  
118 |      *  
113 |      *  
108 |      *  
103 |      *  
098 |    *  **      *  
093 |    ** ***  *  *  
088 |    * * * * *  **  *      * * * *  
083 |    * * * * *  **  *      * * * *      *  
078 |    * * * * *  * * * * *      * * * *      **  
073 |    * * * * *  * * * * *      * * * *      **  
068 |    * * * * *  * * * * *      * * * *      *** *  
063 |    * * * * *  * * * * *      * * * *      * *** **  
058 |    * * * * *  * * * * *      * * * * *      * * * * *  
053 |    * * * * *  * * * * *      * * * * *      * * * * *  
048 |    * * * * *  * * * * *      * * * * *      * * * * *  
043 |    * * * * *  * * * * *      * * * * *      * * * * *  
038 |    * * * * *  * * * * *      * * * * *      * * * * *      *  
033 |    * * * * *  * * * * *      * * * * *      * * * * *  
028 |    * * * * *  * * * * *      * * * * *      * * * * *  
023 |    * * * * *  * * * * *      * * * * *      * * * * *      *  
018 |    * * * * *  * * * * *      * * * * *      * * * * *      *  
013 |    * * * * *  * * * * *      * * * * *      * * * * *      *  
-----
```

Chart Start: Day #192

GRAPHICAL ANALYSIS OF 90-DAY AVERAGE SOLAR FLUX  
-----





|       |                |                                 |      |      |      |      |      |      |      |      |      |
|-------|----------------|---------------------------------|------|------|------|------|------|------|------|------|------|
| 65%   | VERY POOR      |                                 |      |      | *    |      |      |      |      |      |      |
|       | EXTREMELY POOR |                                 |      |      |      |      |      |      |      |      |      |
| ----- |                | ----                            | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
|       | PROPAGATION    | Fri                             | Sat  | Sun  | Mon  | Tue  | Wed  | Thu  | Fri  | Sat  | Sun  |
|       | QUALITY        | Given in 8 Local-Hour Intervals |      |      |      |      |      |      |      |      |      |
| ----- |                |                                 |      |      |      |      |      |      |      |      |      |

## Low Latitude Paths

|                     |                     |                                 |     |     |     |     |     |     |     |     |     |     |     |
|---------------------|---------------------|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CONFIDENCE<br>LEVEL | EXTREMELY GOOD      |                                 |     |     |     |     |     |     |     |     |     |     |     |
|                     | VERY GOOD           |                                 |     |     |     |     |     |     |     |     |     |     |     |
|                     | GOOD                | ***                             | *** | *   | **  | *** | *** | *** | *** | *** | *** | *** | *** |
|                     | FAIR                |                                 |     | *   | *   | *   |     |     |     |     |     |     |     |
|                     | POOR                |                                 |     |     |     |     |     |     |     |     |     |     |     |
| -----<br>70%        | VERY POOR           |                                 |     |     |     |     |     |     |     |     |     |     |     |
|                     | EXTREMELY POOR      |                                 |     |     |     |     |     |     |     |     |     |     |     |
|                     | PROPAGATION QUALITY | Fri                             | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun |     |     |
|                     |                     | Given in 8 Local-Hour Intervals |     |     |     |     |     |     |     |     |     |     |     |

NOTES:

| NORTHERN HEMISPHERE |                |         |  | SOUTHERN HEMISPHERE |                |         |  |
|---------------------|----------------|---------|--|---------------------|----------------|---------|--|
| High latitudes      | $\geq 55$      | deg. N. |  | High latitudes      | $\geq 55$      | deg. S. |  |
| Middle latitudes    | $\geq 40 < 55$ | deg. N. |  | Middle latitudes    | $\geq 30 < 55$ | deg. S. |  |
| Low latitudes       | $< 40$         | deg. N. |  | Low latitudes       | $< 30$         | deg. S. |  |

## POTENTIAL VHF DX PROPAGATION PREDICTIONS (10 SEP - 19 SEP)

INCLUDES SID AND AURORAL BACKSCATTER ENHANCEMENT PREDICTIONS

## HIGH LATITUDES

[illegible]

|           |                                      |     |     |     |     |     |     |     |     |     |                     |   |   |   |   |   |   |   |   |   |
|-----------|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|---|---|---|---|---|---|---|---|---|
| CHANCE OF | Fri                                  | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | F                   | S | S | M | T | W | T | F | S | S |
| VHF DX    | Given in 8 hour local time intervals |     |     |     |     |     |     |     |     |     | AURORAL BACKSCATTER |   |   |   |   |   |   |   |   |   |

## MIDDLE LATITUDES

| FORECAST   Given in 8 hour local time intervals |                                      |     |     |     |     |     |     |     |     |     | SWF/SID ENHANCEMENT |       |   |   |   |   |   |   |   |   |  |
|---|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|-------|---|---|---|---|---|---|---|---|--|
| CONFIDENCE                                      | Fri                                  | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | F                   | S     | S | M | T | W | T | F | S | S |  |
| -----   | ---                                  | --- | --- | --- | --- | --- | --- | --- | --- | --- | -                   | -     | - | - | - | - | - | - | - | - |  |
| 0%  | ***                                  | *** | *** | *** | *** | *** | *** | *** | *** | *** | 0%                  | *     | * | * | * | * | * | * | * | * |  |
| 20%   | ***                                  | *** | *** | *** | *** | *** | *** | *** | *** | *** | 20%                 |       |   |   | * | * | * | * | * | * |  |
| 40%   | ***                                  | *** | *** | *** | *** | *** | *** | *** | *** | *** | 40%                 |       |   |   |   |   |   |   |   |   |  |
| 60%   | ***                                  | *** | *** | *** | *** | *** | *** | *** | *** | *** | 60%                 |       |   |   |   |   |   |   |   |   |  |
| 80%   |                                      |     |     |     |     |     |     |     |     |     | 80%                 |       |   |   |   |   |   |   |   |   |  |
| 100%  |                                      |     |     |     |     |     |     |     |     |     | 100%                |       |   |   |   |   |   |   |   |   |  |
| =====   | ==                                   | ==  | ==  | ==  | ==  | ==  | ==  | ==  | ==  | ==  |                     | ----- |   |   |   |   |   |   |   |   |  |
| 100%  |                                      |     |     |     |     |     |     |     |     |     | 100%                |       |   |   |   |   |   |   |   |   |  |
| 80%   |                                      |     |     |     |     |     |     |     |     |     | 80%                 |       |   |   |   |   |   |   |   |   |  |
| 60%   |                                      |     |     |     |     |     |     |     |     |     | 60%                 |       |   |   |   |   |   |   |   |   |  |
| 40%   | *                                    | *   | *** | *** | *   | *   | *   | *   | *   | *   | 40%                 |       |   | * | * |   |   |   |   |   |  |
| 20%   | ***                                  | *** | *** | *** | *** | *** | *** | *** | *** | *** | 20%                 |       | * | * | * | * |   |   |   |   |  |
| 0%  | ***                                  | *** | *** | *** | *** | *** | *** | *** | *** | *** | 0%                  | *     | * | * | * | * | * | * | * | * |  |
| -----   | ---                                  | --- | --- | --- | --- | --- | --- | --- | --- | --- |                     | -     | - | - | - | - | - | - | - | - |  |
| CHANCE OF                                       | Fri                                  | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | F                   | S     | S | M | T | W | T | F | S | S |  |
| VHF DX  | Given in 8 hour local time intervals |     |     |     |     |     |     |     |     |     | AURORAL BACKSCATTER |       |   |   |   |   |   |   |   |   |  |
|   |                                      |     |     |     |     |     |     |     |     |     |                     |       |   |   |   |   |   |   |   |   |  |

## LOW LATITUDES

[illegible]

|           |   |                     |
|-----------|---|---------------------|
| CHANCE OF | Fri Sat Sun Mon Tue Wed Thu Fri Sat Sun | F S S M T W T F S S |
| VHF DX    | Given in 8 hour local time intervals    | AURORAL BACKSCATTER |
| _____     | _____                                   | _____               |

NOTES:

These VHF DX prediction charts are defined for the 30 MHz to 220 MHz bands. They are based primarily on phenomena which can affect VHF DX propagation globally. They should be used only as a guide to potential DX conditions on VHF bands. Latitudinal boundaries are the same as those for the HF predictions charts.

## AURORAL ACTIVITY PREDICTIONS (10 SEP - 19 SEP)

## High Latitude Locations

|   |                      |             |                 |                 |              |                 |                 |              |                 |                 |              |     |
|---|----------------------|-------------|-----------------|-----------------|--------------|-----------------|-----------------|--------------|-----------------|-----------------|--------------|-----|
| CONFIDENCE<br>LEVEL<br><br>-----<br>70% | EXTREMELY HIGH       |             |                 |                 |              |                 |                 |              |                 |                 |              |     |
|   | VERY HIGH            |             |                 |                 |              |                 |                 |              |                 |                 |              |     |
|   | HIGH                 |             | *               | *               |              |                 |                 |              |                 |                 |              |     |
|   | MODERATE             | *           | ***             | ***             | ***          | *               |                 |              |                 |                 | *            | *   |
|   | LOW                  | ***         | ***             | ***             | ***          | ***             | ***             | ***          | ***             | ***             | ***          | *** |
|   | NOT VISIBLE          | ***         | ***             | ***             | ***          | ***             | ***             | ***          | ***             | ***             | ***          | *** |
|   | -----                | ---         | ---             | ---             | ---          | ---             | ---             | ---          | ---             | ---             | ---          | --- |
|   | AURORAL<br>INTENSITY | Fri<br>Eve. | Sat<br>Twilight | Sun<br>Midnight | Mon<br>Morn. | Tue<br>Twilight | Wed<br>Midnight | Thu<br>Morn. | Fri<br>Twilight | Sat<br>Midnight | Sun<br>Morn. |     |

## Middle Latitude Locations

|                  | EXTREMELY HIGH    |             |                 |                 |              |                 |                 |              |                 |                 |              |     |
|------------------|-------------------|-------------|-----------------|-----------------|--------------|-----------------|-----------------|--------------|-----------------|-----------------|--------------|-----|
| CONFIDENCE LEVEL | VERY HIGH         |             |                 |                 |              |                 |                 |              |                 |                 |              |     |
|                  | HIGH              |             |                 |                 |              |                 |                 |              |                 |                 |              |     |
| -----<br>70%     | MODERATE          |             | *               | *               |              |                 |                 |              |                 |                 |              |     |
|                  | LOW               | *           | ***             | ***             | *            |                 |                 |              |                 |                 |              |     |
|                  | NOT VISIBLE       | ***         | ***             | ***             | ***          | ***             | ***             | ***          | ***             | ***             | ***          | *** |
|                  | -----             | --          | --              | --              | --           | --              | --              | --           | --              | --              | --           | --  |
|                  | AURORAL INTENSITY | Fri<br>Eve. | Sat<br>Twilight | Sun<br>Midnight | Mon<br>Morn. | Tue<br>Twilight | Wed<br>Midnight | Thu<br>Morn. | Fri<br>Twilight | Sat<br>Midnight | Sun<br>Morn. |     |

## Low Latitude Locations

[illegible]

|       |           |     |     |     |          |     |          |     |      |     |          |  |     |  |     |  |     |  |     |  |     |  |
|-------|-----------|-----|-----|-----|----------|-----|----------|-----|------|-----|----------|--|-----|--|-----|--|-----|--|-----|--|-----|--|
| ----- | ---       | --- | --- | --- | ---      | --- | ---      | --- | ---  | --- |          |  |     |  |     |  |     |  |     |  |     |  |
|       | AURORAL   |     | Fri |     | Sat      |     | Sun      |     | Mon  |     | Tue      |  | Wed |  | Thu |  | Fri |  | Sat |  | Sun |  |
|       | INTENSITY |     | Eve |     | Twilight |     | Midnight |     | Morn |     | Twilight |  |     |  |     |  |     |  |     |  |     |  |
| ----- |           |     |     |     |          |     |          |     |      |     |          |  |     |  |     |  |     |  |     |  |     |  |

NOTE:

Version 2.00a of our Professional Dynamic Auroral Oval Simulation Software Package is now available. This professional software is particularly valuable to radio communicators, aurora photographers, educators, and astronomers. For more information regarding this software, contact: "Oler@Rho.Uleth.CA", or "COler@Solar.Stanford.Edu".

For more information regarding these charts, send a request for the document, "Understanding Solar Terrestrial Reports" to: "Oler@Rho.Uleth.Ca" or to: "COler@Solar.Stanford.Edu". This document, as well as others and related data/forecasts exist on the STD BBS at: (403) 756-3008.

\*\* End of Report \*\*

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End of Info-Hams Digest V93 #1072

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